DOCUMENT RESUME

ED 217 671 EC 142 759

AUTHOR Clary, Linda Mixon; Sheppo, Karen G.
TITLE Comprehension Research: New Directions and Ideas for LD Teachers.
PUB DATE [82]
NOTE 27p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Elementary Secondary Education; *Learning Disabilities; *Reading Comprehension; *Teaching Methods

ABSTRACT

Research on teaching methods is reviewed for improving the reading comprehension of learning disabled (LD) students. Among the approaches noted are the structured overview, in which the teacher and/or students arrange important concepts and terms in a graphic design for introduction and discussion before reading; use of story grammars to outline the passage in terms of setting, initiating event, internal response, attempt, consequence, and reaction; guided listening-reading-writing techniques; self questioning and self checking techniques to clarify the purposes for reading such as the Clary and Shapiro Reading Technique for Independent Study; the neurological impress method, in which teacher and student read aloud together; and ReComp which involves reciprocal questioning between student and teacher about the material. The authors emphasize that comprehension is developed only in relation to the student's own content classes and background. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED217671

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Comprehension Research:

New Directions and Ideas for LD Teachers

Linda Mixon Clary and Karen G. Sheppo

Augusta College

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Linda Mixon Clary

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC142759

Recent years have brought an unprecedented interest in reading comprehension, particularly in the area of research. Recent LD research has been concerned with the same problems and has yielded many of the same conclusions. Much of the data have reiterated what good teachers and specialists have known for years, while other studies have indicated some changes that need to be made and some areas that need to be strengthened. A brief summary of this research effort indicates the following conclusions that are important for inservice teachers, resource persons and parents.

> First, reading can no longer be viewed as solely a "bottom-up" process in which readers sequentially progress from letter and word recognition to the extraction of meaning. Rather, reading is an interaction between these processes and "top-down" influences, i.e. the knowledge and expections readers bring to the printed page. (Readence, 1981)

As Kenneth Goodman (1982) has indicated, "...many educators have come to view reading as performance on tests, exercises, and workbooks." Instead it is imperative to "see reading as a process of making sense of written language, a receptive process parallel to listening." (Goodman, 1982) In order to convince students of this fact, our instruction must focus on real reading, not doing dittos, marking workbooks and taking tests.

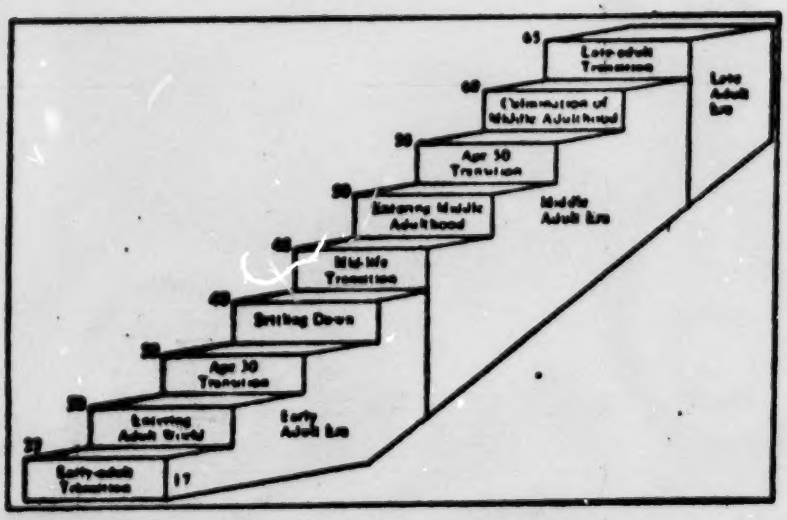
The importance of the reader's background to his understanding of what he reads cannot be overstated and is often referred to as schema theory. Schemata (singular schema) are the networks of concepts or ideas to which the reader relates newly read material, often by filling in gaps that are present in his background and by formulating hypotheses to be accepted or rejected through reading. Consequently, Durkin has written "...comprehension is as dependent on what is in the reader's head as it is on what is printed," (Durkin, 1981) and readers may make widely varied

interpretations of the same text, if their backgrounds and experiences are divergent. Indeed, their decoding of the text may be exactly the same, while their comprehension is quite different. This theory reinforces the idea that teachers must give added time to background development and exploration before reading, rather than skimming over that section of their lesson plans. For this purpose, techniques such as Stauffer's Directed-Reading-Thinking Activity (1960) are useful. It is also important to encourage youngsters to make their own individual predictions before reading and share them with the group, so that the various possibilities of meaning are all explored. Goodman (1982) believes the reader's experience, attitudes, concepts, and cognitive schemes are as important to understanding as the author's background was for creation. Brown (1980) and Bransford (1979) have pointed out that the metacognitive skills, including predicting and self-monitoring, are essential to effective learning. Hence it is very important for teachers to teach students how to predict. In fact, group interaction becomes extremely important when we want students to learn different interpretations of the same materials, as is especially common in today's multicultural, mobile student populations. For example, youngsters who have never gardened may not know the meanings of stakes and beds in that context and may only recognize those terms in relation to food and rest. It is, therefore, important that teachers know the possibilities of understanding that exist among their students and give them some strategies for learning to comprehend efficiently by specific methods.

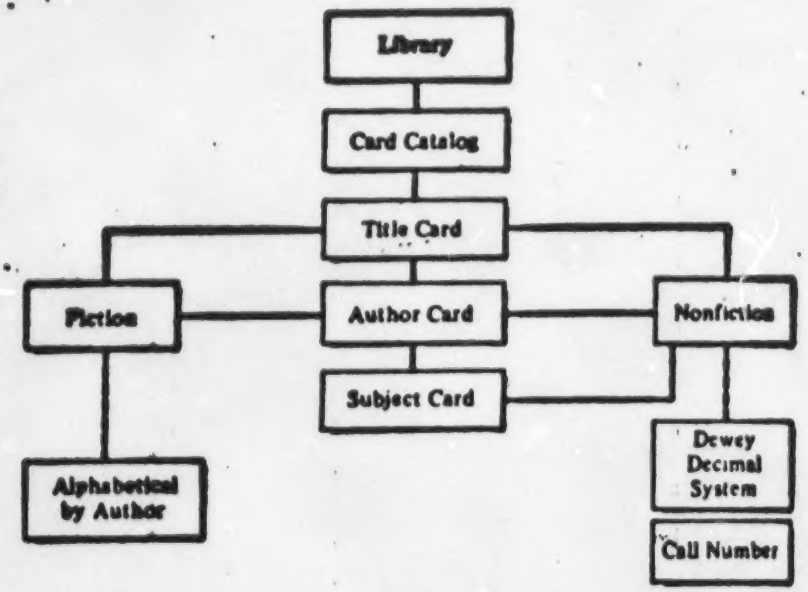
One strategy for building background is the structured overview (Barron, 1969; Earle, 1969). Here the teacher and/or students select important concepts and vocabulary and arrange them in a graphic design for introduction and discussion before reading. This technique can be especially

helpful in content areas. It allows the teacher an opportunity to find out what students already know, fill in gaps or correct misconceptions, and teach needed vocabulary while introducing essential concepts. The following illustration shows examples of structured overviews for psychology and language arts (Tierney, Readence, and Dishner, 1980, p. 279-280). As each illustrates, vocabulary, concepts and organization would be much clearer to youngsters who saw, discussed and/or listened to explanations of these materials before reading. This technique can aid learning disabled students in clarifying their purposes for reading (Stauffer, 1969; Anderson, 1980) and attending to the important parts of a passage (Wong, 1982).

Examples of Structured Overviews



The above structured overview was developed following the reading of *The Seasons of Man's Life*, D. J. Levinson, C. N. Dawson, E. B. Klein, M. H. Levinson, and B. McKee. New York: Alfred A. Knopf, 1978.



The above structured overview was used to introduce the use of the card catalog in a library unit—English, Grade 7.

Reading comprehension is also affected by writing styles. Writing generally follows certain conventions in order to convey meaning and emphasize specific points. Research supports the conclusion that comprehension can be improved if the readers are aware of these conventions. According to Thorndyke (1977), well-formed stories are comprehended better than poorly-formed stories. Such well-formed stories generally follow story grammars.

Story grammar refers to the structure of stories and identifies their major components. There are several story grammars in the literature, but the one proposed by Stein and Glenn (1979) outlines the components as the setting and the episode, which includes the initiating event, internal response, attempt to reach the goal, consequence and reaction. According to the Stein and Glenn's outline, a story might be analysed as follows:

AN ANALYSIS OF A STORY

THE TIGER'S WHISKER

SETTING	ONCE THERE WAS A WOMAN WHO LIVED IN A FOREST.
INITIATING EVENT	ONE DAY SHE WAS WALKING UP A HILL AND SHE CAME UPON THE ENTRANCE TO A LONELY TIGER'S CAVE.
INTERNAL RESPONSE	SHE REALLY WANTED A TIGER'S WHISKER AND DECIDED TO TRY TO GET ONE.
ATTEMPT	SHE PUT A BOWL OF FOOD IN FRONT OF THE OPENING OF THE CAVE AND SHE SANG SOFT MUSIC. THE LONELY TIGER CAME OUT AND LISTENED TO THE MUSIC.
CONSEQUENCE	THE LADY THEN PULLED OUT ONE OF HIS WHISKERS AND RAN DOWN THE HILL VERY QUICKLY.
REACTION	SHE KNEW HER TRICK HAD WORKED AND FELT VERY HAPPY.

(STEIN AND GLENN, 1979)

Current theorists believe that many youngsters read prose successfully because they have schema for the components of stories and read to find them. If the story does not fit this pattern, they often realize that something is missing and has limited their comprehension. In this instance, poor comprehension may be more a result of the author's poor writing rather than any flaw in the reader's comprehension.

Maier (1980) has found that when learning disabled subjects are directed or focused to listen for certain information, their comprehension and cognitive functioning improve. It seems reasonable and likely, then, that such focusing can aid in reading comprehension also. This factor is reinforced by the findings of many studies which have indicated that stories with poor or scrambled structure lead to less speed, accuracy, comprehensibility and recall by readers (Mandler and Johnson, 1977; Stein and Nezworski, 1978; Thorndyke, 1977).

In addition to story structures, signaling devices are used by writers to emphasize content or structure. Such signaling devices may be found in titles, headings and subheadings and/or signal words that indicate organization, e.g., "in contrast to," "however,", "subsequently,", "finally." Meyer, Brandt, and Bluth (1980) found that poor readers comprehended better with help in determining signaling devices.

If knowing story grammars and signal words, enhances comprehension, how can we teach them to young people? Readeance (1981) suggests a simple three-step lesson plan based on providing a model, teaching for recognition and giving practice. In modeling, the teacher verbally describes how to read a sample text by pointing out the signals and talking about them. In the recognition phase, the teacher gives examples and nonexamples that will help students recognize signaling devices. For example, she might point

out that "additionally,", "in comparison to", and "therefore" are signal words in the following sentences:

> Additionally, the strategy helps LD students read with more comprehension, in comparison to simply reading without a specific comprehension aid. Therefore, it is worth teaching.

Finally, practice, must be planned to help students transfer their knowledge to the materials they must read. The practice can be aided at first and independent later.

The story map (Beck and McKeown, 1981) is a means of guiding questioning during comprehension that can be especially helpful in teaching story grammars. It helps youngsters develop a story schema. The device is defined as "a unified representation of a story based on a logical organization of these events and ideas" (p. 914). In order to create a map, the first step is to determine the starting point of the story and list the major events and the plot of the story. In the listing, it is important to include implied ideas and the linking sections that unify the plot. Finally, with the list as a resource, questions are structured to ask about the major points of the plot as it progresses through the story. Such questioning, after a period of time, helps youngsters not only understand plots but also aids them in recognizing when their comprehension is poor because the author has omitted something important.

Attention to signal words and story grammar helps LD youngsters, as well as anyone who experiences difficulty in comprehension, evaluate their own comprehension. Anderson (1980) and Brown (1980) have suggested that this is an essential skill for efficient readers and helps them determine when it is necessary to reread or read ahead in order to improve comprehension.

Anaphoric devices can be another deterrent to comprehension. Anaphora are words which refer to preceding concepts or words. They are used as a means of avoiding repetitions by reducing what is said. If the reader recognizes

that something has been left out, and can recall the referent, there is no problem but if he or she does not recognize the deletion and/or has no instruction in learning to make these recognitions, comprehension may suffer. For example:

> John and I went to the beach. It was terrific! We really enjoyed it. In fact, my whole family does. =
>
> John and I went to the beach. The beach was terrific! John and I really enjoyed the beach. In fact, my whole family enjoys the beach.

Comprehension of the above necessitates recognizing anaphoric devices and their referents. Children need more and better instruction in recognizing this characteristic of texts. Anaphora may be used as nouns, pronouns, verbs or even whole sentences. They reduce repetition and unnecessary redundancy, but they also make comprehension more difficult. Therefore, successful readers must be taught to spot them and pick out the referents. The three-step plan by Readence (1981) described above might be used to teach anaphoric devices.

Another technique developed by this author (Clary) would involve listening, reading and writing and is based on Cunningham's Listening-Reading Transfer Lesson (1975). It can be used for anaphora or any other particular structure or feature of written language. The strategy seeks not only to teach about anaphora but to help readers monitor their understanding and application. Both tasks are important metacognitive skills for the LD youngster.

First, the teacher should choose a short, interesting passage appropriate for her students that contains five or less anaphora. She then reads it to the students while displaying a printed copy on the board or a transparency or a handout with the anaphora marked. She should point out the first two anaphora and their referents very clearly and ask for volunteers to read the next one and determine

its referent. This practice would continue until all were correctly chosen.

As a second step, another passage with marked anaphora would be read aloud and displayed for the group to work through. This time there should be less no teacher involvement except to reiterate the goal of the recoding and helping to redirect the reader as necessary.

Third, an unmarked passage with a slightly higher number of anaphoric devices should be displayed only. Again, the group would work through it.

Fourth, each individual should work through a passage independently and list the anaphora and their referents. The teacher should evaluate for mastery immediately to determine those who need this step (or previous steps) repeated.

The fifth step is aimed toward transfer and application. The teacher directs the students to their textbooks (basal readers, tradebooks or content area texts) and briefly introduces a passage with a limited number of anaphoric devices present. The students should repeat step four, and again list the anaphora and their devices for immediate evaluation. If successful, they then proceed to the final step which is independent practice on several passages suggested by the teacher and finally, completely independent reading. Given this structured instruction and practice that is multisensory in nature, learning disabled readers should find anaphoric devices much easier to comprehend. (The following illustration summarizes the procedure.)

GUIDED LISTENING-READING-WRITING TECHNIQUE

1. Teacher guided reading with visual input
2. Group guided reading with visual input
3. Group unguided reading with visual input
4. Individual unguided reading on a separate passage with immediate evaluation
5. Individual unguided reading in textbooks with immediate evaluation
6. Independent practice in textbooks

Comprehension alone, however, is not the only important task for LD youngsters especially at the middle school, secondary and college levels. These students must be able to employ metacognitive skills as they read and study, and their mastery of these skills must lead to independence in reading and learning.

One of the metacognitive skills that efficient readers use in comprehension is clarifying the purposes for reading, generally through self-questioning and self-checking (Anderson, 1980). While little empirical research has been done with learning disabled children in this area of metacognition, it has been suggested (Wong, 1982) that L.D. children may be affected in their reading comprehension and study because they lack these self-monitoring behaviors. The behavioral observations of many teachers would tend to support the idea that LD students neither set purposes for reading nor check their understanding of the material in relation to the set purposes.

There are several reading/study techniques that may be used with the learning disabled. The SQ3R method (Robinson, 1946) uses a questioning step followed by reading to answer the questions posed. Specific modifications of this method have also been suggested. For science, the PQRST was developed by Spache and Berg (1966) and, for mathemathics, the SQRQCQ by Fay (1965). While these methods are structured as far as the thinking sequence suggested, they do not require an observable response. The teacher has no concrete way to insure that each step of the procedure has been followed by the student. Another method, OK5R (Pauk, 1974), does include a recording step for summarizing the main idea but does not allow for the teacher to observe the student's setting of purposes or his self-checking after reading.

The C & S Reading Technique for Independent Study (Clary & Sheppo) was developed to provide a highly organized approach to comprehending and studying content material utilizing 1) a setting of purposes for reading through self-generated questions and 2) self-checking on meeting these purposes while 3) providing for an observable response. (See illustration)

To begin using the C & S, the student enters the class, date and reading assignment at the top right-hand corner of the page. He then divides the assignment into manageable sections using sub-chapter headings or other divisional notations. It is recommended that one sheet be used for a section of no more than four to six pages. This will depend, of course, on the ability level of the student and the concept-load of the material. The steps are then followed in alphabetical order.

A. The student writes in the overall purpose for reading that section based on the instructor's verbal directions and/or the introduction and summary paragraphs.

B. "What do you want to remember after you read?" The student looks at the bold-face type, paragraph headings, pictures, graphs, etc. and develops questions based on these. The questions are recorded.

C. The student reads and records the answer directly beside each question, correcting any questions as needed. The page number of the answer is also entered.

D. Space is provided for adding any important ideas that were not included in the original questions. Again page numbers are noted.

E. The student maintains a running list of important vocabulary words and the page on which they are found.

F. The student lists any questions that he may wish to check on with the instructor. These may be additional questions or ones listed by number.

Class _____
Date _____
Pg. Assigned _____

C&S READING TECHNIQUE FOR INDEPENDENT STUDY

A. Overall Purpose for Reading (pg. ___): _____
(fill in from instructor's assignment and/or the introduction and summary paragraphs.) _____

B. Develop Questions (Look at the bold-face type, paragraph headings, pictures, graphs, etc.) What do you want to remember after you read?

1. _____
2. _____
3. _____
4. _____
5. _____

C. Read and Answer Questions (Answer the questions or correct the question if it is not correct.) (pg)

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

D. Additional Important Ideas (Add any ideas that are important but not included in your questions) (pg)

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

E. Vocabulary (List vocabulary words you want to remember.) (pg)

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____
6. _____ _____
7. _____ _____

F. Questions to check with the instructor (after lecture and reading: can list by number from above)

1. _____
2. _____
3. _____
4. _____
5.

NOTES:

Date _____
Pg. Assigned _____

C&S READING TECHNIQUE FOR INDEPENDENT STUDY

A. Overall Purpose for Reading (pg. ____): _____

_____

B. Develop Questions

1. _____
2. _____
3. _____
4. _____
5. _____

C. Read and Answer Questions (pg)

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

D. Additional Important Ideas (pg)

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

E. Vocabulary (pg)

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____
6. _____ _____
7. _____ _____

F. Questions to check with the instructor

1. _____
2. _____
3. _____
4. _____
5. _____

Notes:

from D. The individual sheets are placed in a looseleaf notebook after holes are punched at the top.

With the initial teaching of this method, sheets with full directions should be used. As the student understands the directions he can move to sheets with only the bare directions given thus allowing for more work space. (See illustration)

The C & S method provides several advantages to both the student and the teacher. First, it provides the student with a structured, visually presented pattern of reading and studying. If interrupted before completing the reading section, he can easily find his place to begin again. Second, it provides the student with consolidated and organized material from which to study for examinations. For example, by covering section C, the student can attempt to recall the answers to questions posed in B. The page number provides a quick reference to locating the answer if review is needed. Third, it provides the student with concrete practice in developing the metacognitive skill of self-monitoring by practicing setting purposes for reading and checking the understanding of the material in relation to the set purposes.

For the teacher, the C & S is a concrete method for teaching and for carefully assessing the child's development of this skill. Secondly, it utilizes the student's own regular class assignments and allows the teacher to assess his progress on these assignments. Thirdly, it provides organized study material for the teacher, parent, tutor, or study partner to use with the student. Finally, it fosters the eventual independence of the student by teaching him how to better comprehend and study.

For the more severely disabled reader, the work of LaBerge and Samuels (1974) appears to have important implications for the teacher of the learning disabled. Their theory of automaticity suggests that fluent readers are

able to process information below the semantic level effectively (i.e. automatically) and; therefore, full attention can be given to understanding the message intended in the material. For many LD children and youth who read slowly, who repeatedly skip over unfamiliar words, who laboriously decode phonetically, the understanding of the content is lost. Over time the student never learns to comprehend because, in fact, he has never had the practice. Full effort and attention has been directed to "saying" words which does not mean "reading". Several methods appear appropriate for getting the child to the semantic or comprehension level by increasing both his rate and fluency.

The neurological impress method (Heckelman, 1969) involves the teacher and student reading aloud together. The teacher slides her finger along the line of words while she reads into the ear of the student at close range. By being exposed to (or impressed with) a correct model, rate and fluency are increased as in comprehension. Samuels' (1979) method of repeated readings also appears to increase rate, fluency and comprehension as students are directed to reread passages until a satisfactory fluency criterion is reached.

Bos (1982) has suggested that combining neurological impress with repeated readings and including a modified cloze procedure can effectively increase comprehension in children with severe reading disabilities. Perez (1981), in describing modifications of the strict cloze procedure, suggested using reading passages from content books and omitting only nouns and verbs. The difficulty of the cloze exercise can be varied by using a multiple-choice format by requiring the student to supply the words, or by omitting a higher percentage of the words.

Given the efficiency of the aforementioned methods for improving reading comprehension, it would seem appropriate to utilize the strengths of several of these techniques and organize them into a highly structured procedure that could be used with severely disabled readers who are still faced with the demands of content reading. The ReComp method (Sheppo) aims at increasing both reading fluency and comprehension.

In addition to the several methods already noted, ReComp includes a technique, ReQuest (Manzo, 1979), that aids the student in setting purposes for reading by improving his questioning behavior. ReQuest involves reciprocal questioning between student and teacher concerning the material read. Originally, questions were based on single sentences with questioning continuing until the student could predict what would happen in the remainer of the passage. In ReComp, the total passage is used as the basis of questions.

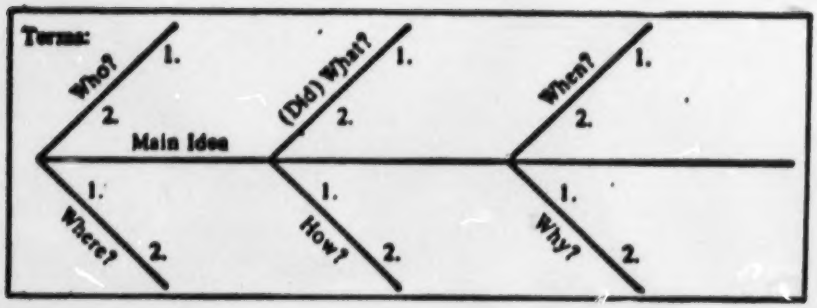
ReComp

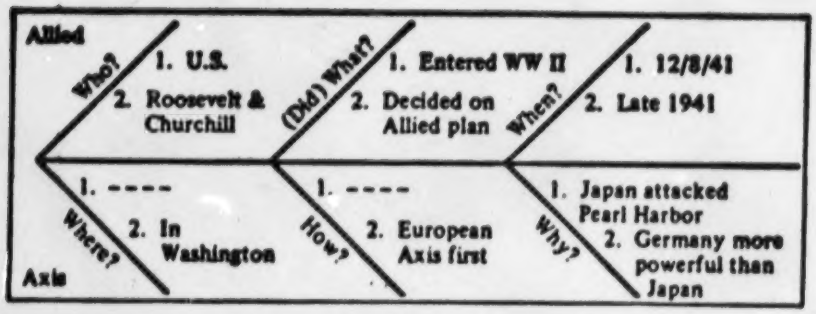
1. Guided Listening & Visualizing
2. Neurological Impress
3. Paraphrasing/ReQuest
4. Repeated Reading with Purpose
5. Modified Cloze
6. Diagram

1. <u>Guided Listening & Visualizing:</u> Through guided listening the teacher sets the purposes for listening depending on need of the student (i.e. strengthening understanding of cause - effect) or the content of the material (i.e. steps in cell division). The student is directed to try to visualize the specific information he is to listen for.

2. Neurological Impress: Using the neurological impress method the teacher and student read the section.
3. Paraphrasing/ReQuest: The student paraphrases as much as he can remember about the passage and the specifics he was directed to listen for. The student and teacher then engage in reciprocal questioning and answering about the passage, with the teacher relating the information to the student's background.
4. Repeated Reading with Purpose: Specific purposes, in the form of questions, for a repeated reading are set by the student based on what he did not understand or remember. The student reads the passage again, with assistance, by the teacher, and answers the questions.
5. Modified Cloze: A modified cloze exercise is completed by the student. Depending on the ability of the student either a multiple-choice format or one requiring total recall is used.
6. Diagram: The student diagrams the important information from the passage.

In the last step "diagram" is used as a general term for requiring the student to produce a written response in an organized manner. This is seen important in the comprehension of content material. The regular classroom generally requires the student to demonstrate his knowledge in written form. Therefore, this step will provide some practice. Also, the use of a diagram better organizes material for later study. The structured overview techniques previously noted could be used in this step as a review procedure. The Herringbone technique (Tierney, Readence, Dishner, 1980), illustrated as follows, would also be appropriate for this step.





(Tierney, Readence, and Dishner, 1980, p. 83-85)

In conclusion, appropriate methods for improving reading comprehension have been presented. These authors urge that selected techniques be used with disabled readers to provide a structured approach to teaching comprehension. All of the methods have one extremely important feature--the student reads, reads, reads. Comprehension is developed not in isolation but in relation to the student's own content classes and background. Success is, therefore, fostered both in the regular class setting and in improved comprehension.

References

Anderson, T.H. Study strategies and adjunct aids. In R.J. Spiro, B.C. Bruce, and W.F. Brewer (Eds.), Theoretical issues in reading comprehension: Perspectives from cognitive psychology, artifical intelligence, linguistics, and education. Hillsdale, N.J.: Erlbaum Assoicates, 1980.

Barron, R.F. The use of vocabulary as an advance organizer. In H.L. Herber and P.L. Sanders (Eds.) Research in reading in the content areas: First year report. Syracuse, N.Y.: Reading and Language Arts Center, Syracuse University, 1969.

Beck, I.L. and McKeown, M.G. Developing questions that promote comprehension: The story map. Language Arts, 1981, 58, 913-918.

Bos, C.S. Getting past decoding: Assisted and repeated readings as remedial methods for learning disabled students. Topics in Learning and Learning Disabilities, 1982, 1 (4), 51-57.

Bransford, J.D. Human cognition: Learning understanding and remembering, Blemont, California: Wadsworth, 1979.

Brown, A.L. Metacognitive development and reading. In R.J. Spiro, B. Bruce, and W.F. Brewer (Eds.), Theoretical issues in reading comprehension. Hillsdale, N.J.: Erlbaum Associates, 1980.

Cunningham, Patricia M. The listening-reading transfer lesson. The Reading Teacher, 1975, 29, 169-172.

Durkin, Delores. What is the value of the new interest in reading comprehension? Language Arts, 1981, 58, 23-42.

Earle, Richard. The use of the structured overview in mathematics classes. In H.L. Berber and D.L. Sanders (Eds.), Research in reading in the content areas: First year report. Syracuse, N.Y.: Reading and Language Arts Center, Syracuse University, 1969.

Fay, L. Reading study skills: Math and science. In J.A. Figural (Ed.), Reading and Inquiry. Newark, DL.: International Reading Association, 1965.

Goodman, Kenneth. Revaluing readers and reading. Topics in Learning and Learning Disabilities, 1982, 1 (4), 87-93.

Hackelman, R.G. A neurological-impres method of remedial-reading instruction. Academic Therapy, 1968, 4, 277-282.

LeBerge, D., and Samuels, S.J. Toward a theory of automatic information processing in reading. Cognitive Psychology, 1974, 6, 293-323.

Maier, A.S. The effect of focusing on the cognitive processes of learning disabled children. Journal of Learning Disabilities, 1980, 13 (3), 34-38.

Mandler, Jean M. and Johnson, Nancy S. Remembrance of things passed: Story structure and recall. Cognitive Psychology, 1977, 9 (1), 111-151.

Manzo, A.V. The ReQuest procedure. Journal of Reading, 1969, 13, (2), 123-126.

Meyer, B., Brandt, D. and Bluth, G. Use of top-level structure in test: Key for reading comprehension of ninth grade students. Reading Research Quarterly, 1980, 16, 72-103.

Perez, S.A. Effective approaches for improving the reading comprehension of problem readers. Reading Horizons, 1981, 22 (1), 59-65.

Pauk, W. How to study in college, 2nd ed., Boston: Houghton Mifflin, 1974.

Readence, John. Research into practice: The center for the study of reading Georgia Journal of Reading, 1980, 6 (1), 29-31.

Readence, John and Mateja, John. Research into practice: Enhancing comprehension through text structure. Georgia Journal of Reading, 1981, 7 (1), 39-41

Robinson, F.P. Effective study. New York: Harper and Bros., 1946.

Samuels, S.J. The method of repeated readings. The Reading Teacher, 1979. 32, 403-408.

Spache, G.D., and Berg, P.C. The art of efficient reading. New York: MacMillan, 1966.

Stauffer, R.G. Directing reading maturity as a cognitive process. New York: Harper and Row, 1969.

_____. Productive reading-thinking at the first grade level. Reading Teacher, 1960, 13, 183-187.

Stein, N.L. and Glenn, C.G. An analysis of story comprehension in elementary children. R. Hillsdale (Ed.), In New Directions in Discourse Processing (Vol. 2). Hillsdale, NJ: Erlbaum Associates, 1979.

Stein, N.L. and Nezworski, T. The effects of organization and instructional set story memory. (Technical Report #29). Urbana, Illinois: University of Illinois, Center for the Study of Reading, 1978.

Thorndyke, P.W. Cognitive structures in comprehension and memory of narrative discourse. Cognitive Psychology, 1977, 9 (1), 77-110.

Tierney, J., Readence, J.E. and Dishner, E.K. Reading Strategies and practices: A guide for improving instruction. Boston: Allyn & Bacon, 1980.

Wong, Bernice Y. L. Understanding learning disabled students' reading problems: contributions from cognitive psychology. Topics in Learning and Learning Disabilities, 1982, 1 (4), 43-50.